Infectious Disease Epidemiology Section
Office of Public Health, Louisiana Dept of Health & Hospitals
800-256-2748 (24 hr number) – (504) 568-5005
www.oph.dhh.state.la.us

West Nile Viral Infection: Blood Transfusions and Organ Donations

West Nile virus (WNV) may be transmitted by blood transfusion or organ donation but this is rare.
Investigations have shown that blood transfusions and transplanted organs may be the cause of WNV infection in recipients.

Transfusion-related WNV cases are reported and investigated as the first step in prevention
State and local public health departments report cases of West Nile virus infection in patients who have received blood transfusions in the 4 weeks before they got sick to the blood collection agency that collected the donation and to CDC from through ArboNET, the national database where information about cases of West Nile virus is kept.

CDC, FDA, blood collection agencies, and state and local health departments investigate possible cases of WNV transmission through blood transfusion and organ transplantation. Any remaining blood products from donors whose blood was transfused to patients with confirmed or suspected WNV infection are withdrawn.

Physicians are asked to notify public health authorities of any patients who develop symptoms of WNV infection within 4 weeks of receiving a blood transfusion or organ transplantation. In addition, patients with WNV infection whose symptoms begin in the weeks preceding blood or organ donation should also be reported. Prompt reporting of these persons helps facilitate withdrawal of potentially infected blood components.

Blood Banks avoid collecting blood from suspect donors
FDA issued an alert to blood banks and organizations to be vigilant in excluding individuals who may have early symptoms of West Nile virus from donating blood. Most people who have West Nile virus do not show symptoms, making it difficult to defer them from donation. Blood banks are vigilant to defer all of those who may have minor illnesses, especially in areas where West Nile virus is most active.

In addition, cases of West Nile virus infection in people who donated blood in the 2 weeks preceding illness onset should also be reported to CDC and blood collection agencies where the sick person donated blood. The blood collection agency will destroy potentially infectious units of blood.

The blood supply is screened and this program is a success?
In 2003, all blood banks started using blood screening tests for West Nile virus. The screening methods allow blood banks to destroy potentially infectious blood before it is given to anyone.

The implementation of donor screening for WNV in 2003 has reduced the risk of transfusion-associated WNV infection substantially by removing hundreds of units of potentially infectious blood products donated by asymptomatic donors.

People should not avoid donating blood or getting blood transfusions or organ transplants
Blood is lifesaving and is currently in short supply. Donating blood is safe, and we encourage blood donation now and in the future. Approximately 4.5 million persons receive blood or blood products annually. Although persons needing blood transfusions or organ transplants should be aware of the risk for WNV infection, the benefits of receiving needed transfusions or transplants outweigh the potential risk for WNV infection.

A person who has had West Nile virus, can still donate blood after they completely recover
With West Nile virus infection, the viremia usually is transient, and people clear the virus very quickly. Blood centers will take precautions (see preceding question and answer) to be sure that donors who have been diagnosed with West Nile virus have fully recovered before donating.

Concerned about getting West Nile virus after a transfusion?
You should be aware of the potential risk for WNV infection and the need to monitor your health. If you have symptoms of West Nile virus or other concerns you should contact your physician. However, it is important to remember that a large number of WNV infections due to mosquito bites have occurred among persons in the United States this year. By chance alone, some of these persons will have received blood transfusions and/or organ transplantations.

Recent receipt of a blood transfusion or organ transplantation by a person with WNV infection does not necessarily implicate the transfusion/transplantation as the source of infection.

Reports of donors with WNV infection found at blood banks are not usually showing up on the maps
Maps include people with WNV illness who are reported state health departments. Because people with fever and headache in the week before donation are not allowed to donate blood, the infections found by the blood banks are from donors without symptoms at the time of donation. As a result, they are not considered "cases." Occasionally, a donor may develop symptoms of WNV illness after donation. Then, the person would be counted as a case by the health department.
It is important to know that screening tests used at blood collection centers are very new, and a much additional testing will be needed to confirm whether a blood donation is truly infected with WNV. Although the blood donation is removed from the blood supply as soon as the initial screening test shows that it could be infected, it may take several more weeks to confirm the infection.

There is enough blood to meet the needs of hospitals?
Although there is always an increased demand for blood products during summer months, only a relatively few units of blood will be removed from the blood supply even if a few uninfected products are removed because of "false positive" tests.
Blood donations usually decrease in summer. Despite the recently identified problems with receiving infectious blood, it is still safe to donate blood. CDC encourages people who can donate to consider making a donation during summer months to help ensure adequate blood supplies for all who need them. If you have symptoms consistent with possible WNV infection (such as fever and headache) you will be deferred from donating at that time but will be allowed to donate again when you feel better.

Having a positive test for WNV, does not always mean illness will follow
A positive result in the blood means that the person has been recently bitten by an infected mosquito. Most infected people do not become ill at all and only a very small number develop West Nile fever or more serious disease. It is thought that there is immunity from WNV for a long period after becoming infected, possibly for life.

Blood banks notify the persons with positive blood tests for WNV
Blood banks will contact donors who may have a WNV infection. A subsequent blood sample will be requested in order to help confirm the infection. We thank you in advance for your cooperation in protecting the national blood supply, and helping to validate the tests that are being used.

What to do after a positive blood tests for WNV
If you learn from a blood bank that your blood was likely infected with WNV you may be requested to give another blood sample to help confirm the infection.
Most WNV infections do not cause any symptoms, and do not require any medical attention. There is nothing in particular that you need to do because of the infection. It is also likely that you have antibodies to prevent you from getting sick with WNV in the future. If you were infected with WNV, this does tell you that there is a risk of infection in your area, and it is important for the rest of your family to protect themselves.
Of course if you do feel ill you should consult your health care provider.

Infectious Disease Epidemiology Section
Office of Public Health, Louisiana Dept of Health & Hospitals
800-256-2748 (24 hr number) – (504) 568-5005
www.oph.dhh.state.la.us

West Nile Viral Infection: Breast Feeding

Because the health benefits of breast-feeding are well established, and the risk for WNV transmission through breast-feeding is unknown, there is NO change in breast-feeding recommendations.
Breastfeeding women who are ill or who are having difficulty breastfeeding for any reason, as always, are advised to consult their physicians.

West Nile virus may be transmitted through breast milk
Based on a recent case in Michigan, it appears that West Nile virus can be transmitted through breast milk. A new mother in Michigan contracted West Nile virus from a blood transfusion shortly after giving birth. Laboratory analysis showed evidence of West Nile virus in her breast milk. She breastfed her infant, and three weeks later, her baby's blood tested positive for West Nile virus. Because of the infant's minimal outdoor exposure, it is unlikely that infection was acquired from a mosquito. The infant was most likely infected through breast milk. The child did not develop symptoms of West Nile virus.

Breastfeeding women may continue breast-feeding if they are symptomatic for West Nile virus
Because the health benefits of breast-feeding are well established, and the risk for West Nile virus transmission through breast-feeding is unknown, the new findings do not suggest a change in breast-feeding recommendations. The American Academy of Pediatricians and the American Academy of Family Physicians recommend that infants be breastfed for a full year of life. Lactating women who are ill or who are having difficulty breast-feeding for any reason, as always, should consult their physicians.

Breastfeeding women should continue breast-feeding if they are not symptomatic for West Nile virus
Because the health benefits of breast-feeding are well established, and the risk for West Nile virus transmission through breast-feeding is unknown, the new findings do not suggest a change in breast-feeding recommendations.

Breastfeeding women do not need to be tested for West Nile virus
There is no need to be tested just because you are breast-feeding.

Infants are not at higher risk than other groups for illness with West Nile virus
West Nile virus illnesses in children younger than 1-year-old are infrequent. During 1999-2001, no cases in children younger than one year of age were reported to CDC. Of the over 2500 total West Nile Virus cases in 2002, only four were less than one year of age.

Pregnant and Breast-feeding women may use insect repellent containing DEET
Insect repellents help people reduce their exposure to mosquito bites that may carry potentially serious viruses such as West Nile virus, and allow them to continue to play and work outdoors. There are no reported adverse events following use of repellents containing DEET in pregnant or breast-feeding women. Other ways to limit exposure to mosquitoes include limiting time outside especially during dawn and dusk, and wearing long sleeves and pants.

Infectious Disease Epidemiology Section
Office of Public Health, Louisiana Dept of Health & Hospitals
800-256-2748 (24 hr number) – (504) 568-5005
www.oph.dhh.state.la.us

West Nile Viral Infection: Alligators

The detection of West Nile virus in alligators raises some concerns:

1-Are these alligators a concern as a source of West Nile virus for the population living nearby?
The West Nile virus is extremely abundant in some of the common birds affected by West Nile. The pool of virus in alligator is estimated to be very small in comparison with the huge pool of virus present in the birds. Overall alligators probably play a small role in transmitting the virus to mosquitoes and people because there haven't been more human cases in areas with alligators.
Therefore, living or working close to infected alligators would not pose any special risk.

2-Can skinning, cutting or cooking alligator meat be dangerous?
Alligator meat and blood cam contain West Nile virus. While these viruses are not expected to go through normal intact skin, they may go through damaged skin (cuts, eczema, any skin disease) and they may infect through mucosal membranes (lining of the eye and mouth for example). Therefore those who skin and cut through alligator meat need to wear gloves and wash their hands before and after work. If there is a risk of spash of alligator blood in their eyes or face the people would need to wear goggles.

3-Can infected alligator meat be sold ?
The virus is thermo labile and thorough cooking should inactivate.

Infectious Disease Epidemiology Section
Office of Public Health, Louisiana Dept of Health & Hospitals
800-256-2748 (24 hr number) – (504) 568-5005
www.oph.dhh.state.la.us

West Nile and Wild Game Meat

Is there a risk of getting infected with West Nile virus (WNV) if I eat turkey or another animal that has been infected with the virus?

There is no evidence that people can become infected with WNV from eating infected meat. The small, theoretical risk of infection can be eliminated by proper handling and thorough cooking of meat before it is consumed.

Several well-known and potentially serious food-borne illnesses can occur when turkey and other meats are improperly handled or undercooked.

What is known about the risk of West Nile virus infection from dried, uncooked meat (jerky)?

There are no published studies that directly address this question. Most studies indicate that while mammals can become infected with West Nile virus, they do not develop high concentrations of virus in their blood or tissues. Although it is unlikely that dried meat from mammals would have much virus present, and probable that gastrointestinal digestion would further limit the possibility of infectiousness, there is insufficient evidence to determine whether dried meat presents a risk of West Nile virus infection to humans or other animals.

If you have questions about this topic it may be advisable to contact local wildlife authorities and/or health authorities to find out whether the area where the animal was harvested has West Nile virus activity, and whether animals of the species in question were affected.

Are duck and other wild game hunters at risk for West Nile virus infection?

Because of their outdoor exposure, game hunters may be at risk if they are bitten by mosquitoes in areas with West Nile virus activity. The extent to which West Nile virus may be present in wild game is unknown.

What should wild game hunters do to protect against West Nile virus infection?
Hunters should follow the usual precautions when handling wild animals. If they anticipate being exposed to mosquitoes, they should apply insect repellent to clothing and skin, according to label instructions, to prevent mosquito bites. Hunters should wear gloves when handling and cleaning animals to prevent blood exposure to bare hands and meat should be cooked thoroughly.

Who should wild game hunters contact for information about the risk for West Nile virus infection in specific geographic areas?

Hunters should check with their local area department of wildlife and naturalist resources, state epidemiologist at the state health department, or the US Geological Survey (USGS) National Wildlife Health Center, Madison, WI, 608-270-2400 for information on local area risk.